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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,932	12/26/2001	Rick L. Angell	31125US2	4466

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EXAMINER

MUSSER, BARBARA J

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 03/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/035,932

Applicant(s)

ANGELL ET AL.

Examiner

Barbara J. Musser

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-21 is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☒ Claim(s) 12 and 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Emery in view of the collective teachings of the state of the art as evidenced by at least one of Smith, Middleton, and Molins and in view of Onai.

Emery discloses a conductive filler wherein a nonconductive core is wrapped by a conductive tape which overlaps itself.(Col. 2, ll. 42-48; Figure 4B) The reference does not disclose how this filler is formed. However, the forming of product having a core surrounded by a covering layer is well-known in the bonding arts as shown for example by any of Smith(Figure 5), Middleton(Figure 6) and Molins(Figure 1) which show folding the edges of a web over a core and overlapping the edges to form a product having a core surrounded by a covering layer. It would have been obvious to one of ordinary skill in the art at the time the invention was made to fold the edges of the conductive tape of Emery around the core and overlap the edges since this is a well-known method of forming a product having a core surrounded by a covering layer as shown by the collective teachings of the state of the art as evidenced by at least one of Smith, Middleton, and Molins and since Emery does not disclose a method for making the conductive filler in a continuous and cost effective manner.

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The references cited above are silent as to the specifics of the conductive tape. Onai discloses an flexible electrically conductive sheet which allows current to be discharged through it.(Col. 2, ll. 43-54) It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the conductive sheet of Onai as the backing for the tape of Emery since the sheet of Onai can pass and discharge current(Col. 2, ll. 53-55) which is the purpose of the conductive filler of Emery. The fibers of Onai contain substantially non-conductive fibers.(4) The claims do not require that all the fibers be nonconductive.

Regarding claims 2 and 4, Emery does not disclose whether the adhesive is on the interior or exterior of the conductive tape after it is wrapped around the core. One in the art would appreciate that the adhesive layer could be on either side depending on whether it was more important for the conductive tape to be bonded to the core or to the article it was placed in.

Regarding claim 6, it is well-known in the bonding arts to press layers together using roll pairs to bond them together as shown for example by Smith, which shows a roll pair pressing layers having adhesive between them together.(Figure 1) It would have been obvious to one of ordinary skill in the art at the time the invention was made to press the core and conductive layer together using a roll pair since the use of roll pairs to press layers having adhesive together is well-known in the art as shown for example by Smith.(Figure 1)

Regarding claim 8, Emery discloses the conductive layer is overlapped such that a portion of it forms a laminate.(Figure 4B)

Regarding claim 9, Emery discloses the conductive layer is overlapped such that a portion of it forms a laminate.(Figure 4B)

Regarding claim 10, while Emery discloses an adhesive tape, i.e. a continuous web of adhesive, using adhesive strips only in the joining region is an obvious alternative as shown for example by Molins which discloses applying adhesive to the edges only.(Figure 2) It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply adhesive to only the edges of the conductive layer since the use of adhesive only in specific locations is an obvious alternative as shown for example by Molins.(Figure 2) While the reference discloses applying adhesive as a coating, the use of webs of adhesive is rather than coatings is a well-known alternative in the bonding arts. Only the expected results would be achieved.

***Allowable Subject Matter***

3. Claims 12 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
4. Claim 14-21 are allowed.
5. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record does not teach or fairly suggest placing separate adhesive webs on the same side of a conductive layer on opposite edges, and then folding the layer around a filler such that one adhesive web contacts the filler and the other contacts the conductive layer in the context of the claimed invention.

***Response to Arguments***

6. Applicant's arguments filed 12/8/03 have been fully considered but they are not persuasive.

Regarding applicant's argument that the references do not disclose a conductive layer having substantially non-conductive fibers, Onai discloses a web of material having both non-conductive(4) and conductive fibers(3). The claim does not require that all the fibers be non-conductive or that the yarn be non-conductive, but simply that it have fibers which are non-conductive which Onai does.

7. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, one in the art would look to other methods of forming a product having a core surrounded by a covering layer since the reference does not express a method for making it in a continuous and cost effective manner. The fact that the references do not disclose a motivation does not mean that one in the art would not be motivated to look to other methods of forming cores surrounded by covering materials to find a method of forming the article.

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Regarding applicant's argument that Smith does not disclose pressing a web of non-conductive core wrapped by a conductive layer, Emery does. The method is applied to the article of Emery. Pressing to bond is extremely well-known and conventional in the bonding arts and the fact that Emery does not disclose such does not mean that it would have been obvious to one having knowledge in the bonding arts.

### ***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Barbara J. Musser** whose telephone number is **(571)**

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**272-1222.** The examiner can normally be reached on Monday-Thursday; alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571)-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



BJM



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